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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
PATEL, NIRAV G	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/590,149	MOROHASHI, TOSHIO	
	Examiner	Art Unit	
	Nirav G. Patel	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 18 November 2009.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Response to Arguments

1. Applicant's arguments filed 11/18/2009 have been fully considered but they are not persuasive.

Regarding Claims 1, 2, 6, and 8 through 12, applicants assert that (i) Kato fails to disclose that the block region serving as a unit for the Discrete Cosine Transform (DCT) processing and the filtering region serving as a unit for performing the filtering processing attenuating the high frequency component are controlled to have a constant relationship. (E.g., "each of the rectangular regions being obtained by equally dividing each of said block regions by 2n".), (ii) Chen's disclosure that a DWT coefficient is divided into sub-blocks of an image is not intended to attenuate or filter a high frequency region for each divided region, and therefore does not suggest the configuration of the present invention. (iii) the references cannot be combined due to the fact that combining them would require change of a basic principle of operation, and (iv) the configurations

described in the Kato and Chen references do not produce the result of the present invention.

Examiner's Response, (i) The claim limitations do not require that the DCT processing and the filtering region are controlled to have a constant relationship. It does require that "each of the rectangular regions being obtained by equally dividing each of said block regions by 2n (where n is a natural number) and each having a size of two or more pixels," which Kato teaches (See Page 4), thus meeting the limitations of the claim. (ii) Chen is not relied upon to teach filtering a high frequency region. Chen's teachings of filtering regions, where the region is a cluster which is smaller than a block region, and which consists of one or more adjacent rectangular region is relied upon, and that in combination with the Kato references teaches the limitations of the current claim language. (iii) Col. 9, Lines 10-17 of Kato teaches that the compression method employed in the above-described first to third embodiments may be **<u>any</u>** method (emphasis added). By using any method, such as DWT, which is similar to DCT, the teachings of Chen would not require change of a basic principle of operation to be applied with Kato. Therefore the references can be reasonably combined. (iv) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the results produced by the present invention) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Objections

2. Claim 13 is objected to because of the following informalities: the claim current requires dividing each of said block regions by 2k in a vertical direction and by 2m in a horizontal direction, but then specifies k and n as natural numbers. It is not clear where "n" is used, perhaps it is intended that m is a natural number? However, for the purposes of this action, it is interpreted that m is a natural number. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 6, and 8 through 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (U.S. Pat. No.: 6,744,927) in view of Chen et al. (U.S. Pub. No.: 2004/0252903, "Chen").

1) Regarding Claim 1, Kato teaches an image compression method comprising: a preprocessing step of performing preprocessing on input image data (Figure 7: S1004-1006 perform preprocessing on an inputted image); and

a data compressing step of performing a data compression processing on preprocessed image data (Figure 7: S1007 performs compressing on the preprocessed data),

wherein said preprocessing step includes: a filtering region dividing step of dividing said input image data into a plurality of filtering regions (Figure 7: Step 1005 divides the image into face area or non face area);

a region designating step of discriminating important regions from unimportant regions in said input image data (Figure 7: The face area is discriminated as the important region and unimportant region (non face area)); and

a filtering step of performing a filtering processing on said unimportant regions for each of said filtering regions to attenuate a high frequency component of said input image data (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)),

said data compressing step includes: a block region dividing step of dividing said preprocessed image data into a plurality of block regions, each shape of which is rectangular; an orthogonal transforming step of performing an orthogonal transform processing said image data for each of said block regions; and a quantizing step of quantizing said image data that has been subjected to said orthogonal transform processing for each of said block regions (Col. 9, Lines 10-17: H.261 divides the image into a macroblock of 8 by 8 pixels, which is then transform coded using discrete cosine transform (DCT), which quantizes the image data which was subjected to DCT), and

each of the rectangular regions being obtained by equally dividing each of said block regions by 2n (where n is a natural number) and each having a size of two or

more pixels (Col. 9, Lines 10-17: Using H.261, the image data is divided into block regions of 16 by 16 pixels (which is 2*8), which is more than two or more pixels), and

said filtering processing is performed using a low-pass filter common to said respective filtering regions (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)).

Kato fails to teach each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions.

However, in the same field of endeavor, Chen teaches each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions (Figure 7D: The input image containing the region of interest/important area is divided into one or more adjacent rectangular regions).

Modifying Kato's teachings where he determines if the data contains a face or not and then using Chen's teachings of dividing the filtering regions into smaller regions than the block region (mosaicing) allows for creating smaller areas which can be distinctly analyzed and filtered (due to the fact that they are smaller regions, which can accurately determine if they are regions of interest or non-interest, and contain other relevant information), such that higher compression can take place on the non-interest region by losing spatial information by low-pass filtering, as taught by Kato, while keeping information related to the region of interest by way of determining by the smaller rectangle if the areas contain relevant information.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Chen to Kato.

2) Regarding Claim 2, Kato teaches an image compression apparatus comprising: preprocessing means for preprocessing input image data (Figure 7: S1007 performs compressing on the preprocessed data); and

data compressing means for performing a data compression processing on preprocessed image data (Figure 7: S1007 performs compressing on the preprocessed data),

wherein said preprocessing means includes: filtering region dividing means for dividing said input image data into a plurality of filtering regions (Figure 7: Step 1005 divides the image into face area or non face area);

region designating means for discriminating important regions from unimportant regions in said input image data (Figure 7: The face area is discriminated as the important region and unimportant region (non face area)); and

filtering means for performing a filtering processing on said unimportant regions for each of said filtering regions to attenuate the high frequency component of said input image data (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)),

said data compressing means includes: block region dividing means for dividing said preprocessed image data into the plurality of block regions, each shape of which is rectangular; orthogonal transforming means for performing an orthogonal transform processing on said image data for each of said block regions; and quantizing means for quantizing said image data that has been subjected to said orthogonal transform processing for each of said block regions (H.261 divides the image into a macroblock of 8 by 8

pixels, which is then transform coded using discrete cosine transform (DCT), which quantizes the image data which was subjected to DCT), and

each of the rectangular regions being obtained by equally dividing each of said block regions by 2n (where n is a natural number) and each having a size of two or more pixels (Col. 9, Lines 10-17: Using H.261, the image data is divided into block regions of 16 by 16 pixels (which is 2*8), which is more than two or more pixels), and

said filtering processing is performed using a low-pass filter common to said respective filtering regions (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)).

Kato fails to teach each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions.

However, in the same field of endeavor, Chen teaches each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions (Figure 7D: The input image containing the region of interest/important area is divided into one or more adjacent rectangular regions).

Modifying Kato’s teachings where he determines if the data contains a face or not and then using Chen's teachings of dividing the filtering regions into smaller regions than the block region (mosaicing) allows for creating smaller areas which can be distinctly analyzed and filtered (due to the fact that they are smaller regions, which can accurately determine if they are regions of interest or non-interest, and contain other relevant information), such that higher compression can take place on the non-interest region by losing spatial information by low-pass filtering, as taught by Kato, while

keeping information related to the region of interest by way of determining by the smaller rectangle if the areas contain relevant information.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Chen to Kato.

3) Regarding Claim 6, Chen teaches in combination with Kato the limitations of claim 2, and further teaches filtering region dividing means divides said input image data into said filtering regions smaller in size than said block regions (Figure 7D: The input image containing the region of interest/important area is divided into one or more adjacent rectangular regions).

4) Regarding Claim 8, Kato teaches in combination with Chen the limitations of claim 2, and further teaches an image data output terminal for outputting said preprocessed image data (Figure 1: The preprocessed and compressed data are outputted from image coding apparatus 100 to be displayed on the display unit (Figure 24, Unit 410)).

5) Regarding Claim 9, Kato teaches an image transmission system in which a preprocessing apparatus is connected to a data compression apparatus through a first communication line (Figure 2: The face-area recognition unit (15) is connected to a data compression (image encoder, 16) via a first communication line), and

in which said data compression apparatus is connected to a data expansion apparatus through a second communication line (Figure 2: The image encoder (compression apparatus, 16) is connected to the image decoder (expansion apparatus, 14) via a second communication line),

wherein said preprocessing apparatus includes: the filtering region dividing means for dividing input image data into a plurality of filtering regions (Figure 7: Step 1005 divides the image into face area or non face area);

region designating means for discriminating important regions from unimportant regions in said input image data (Figure 7: The face area is discriminated as the important region and unimportant region (non face area));

filtering means for performing a filtering processing on said unimportant regions for each of said filtering regions to attenuate a high frequency component of said input image data (Figure 7: The face area is discriminated as the important region and unimportant region (non face area)); and

data transmission means for transmitting said image data that has been subjected to said filtering processing to said first communication line (Col. 2, Lines 45-50: A data communication control apparatus allows for compression means for compressing image data to be transmitted (after pre-processing)),

said data compression apparatus includes: block region dividing means for dividing preprocessed image data into a plurality of block regions, each shape of which is rectangular; orthogonal transforming means for performing an orthogonal transform processing on said image data for each of said block regions; quantizing means for quantizing said image data that has been subjected to said orthogonal transform processing for each of said block regions (Col. 9, Lines 10-17: H.261 divides the image into a macroblock of 8 by 8 pixels, which is then transform coded using discrete cosine transform (DCT), which quantizes the image data which was subjected to DCT); and

data transmitting means for transmitting encoded image data to said data expansion apparatus through said second communication line (Figure 2: The image encoder (compression apparatus, 16) is connected to the image decoder (expansion apparatus, 14) via a second communication line), and

each of the rectangular regions being obtained by equally dividing each of said block regions by 2n (where n is a natural number) and each having a size of two or more pixels (Col. 9, Lines 10-17: Using H.261, the image data is divided into block regions of 16 by 16 pixels (which is 2*8), which is more than two or more pixels), and

said filtering processing is performed using a low-pass filter common to said respective filtering regions (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)).

Kato fails to teach each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions.

However, in the same field of endeavor, Chen teaches each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions (Figure 7D: The input image containing the region of interest/important area is divided into one or more adjacent rectangular regions).

Modifying Kato's teachings where he determines if the data contains a face or not and then using Chen's teachings of dividing the filtering regions into smaller regions than the block region (mosaicing) allows for creating smaller areas which can be distinctly analyzed and filtered (due to the fact that they are smaller regions, which can accurately determine if they are regions of interest or non-interest, and contain other

relevant information), such that higher compression can take place on the non-interest region by losing spatial information by low-pass filtering, as taught by Kato, while keeping information related to the region of interest by way of determining by the smaller rectangle if the areas contain relevant information.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Chen to Kato.

6) Regarding Claim 10, Kato teaches in combination with Chen the limitations of claim 9, and further teaches an image display apparatus that is connected to said first communication line, and that displays said preprocessed image data (Figure 1: The preprocessed and compressed data are outputted from image coding apparatus 100 to be displayed on the display unit (Figure 24, Unit 410)).

7) Regarding Claim 11, Kato teaches a data compression preprocessing apparatus for preprocessing image data input to a data compression apparatus that divides said image data into a plurality of rectangular block regions, each shape of which is rectangular, and that performs an orthogonal transform and a quantization on said input data for each of the block regions (Col. 9, Lines 10-17: H.261 divides the image into a macroblock of 8 by 8 pixels, which is then transform coded using discrete cosine transform (DCT), which quantizes the image data which was subjected to DCT),

the data compression preprocessing apparatus comprising: filtering region dividing means for dividing said input image data into a plurality of filtering regions (Figure 7: Step 1005 divides the image into face area or non face area);

a region designating step of discriminating important regions from unimportant regions in said input image data (Figure 7: The face area is discriminated as the important region and unimportant region (non face area));

region designating means for discriminating important regions from unimportant regions in said input image data (Figure 7: The face area is discriminated as the important region and unimportant region (non face area)); and

filtering means for performing a filtering processing on said unimportant regions for each of said filtering regions to attenuate a high frequency component of said input image data (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)), and

each of the rectangular regions being obtained by equally dividing each of said block regions by 2n (where n is a natural number) and each having a size of two or more pixels (Col. 9, Lines 10-17: Using H.261, the image data is divided into block regions of 16 by 16 pixels (which is 2*8), which is more than two or more pixels),

said filtering processing is performed using a low-pass filter common to said respective filtering regions (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)).

Kato fails to teach each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions.

However, in the same field of endeavor, Chen teaches each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of

one or more adjacent rectangular regions (Figure 7D: The input image containing the region of interest/important area is divided into one or more adjacent rectangular regions).

Modifying Kato's teachings where he determines if the data contains a face or not and then using Chen's teachings of dividing the filtering regions into smaller regions than the block region (mosaicing) allows for creating smaller areas which can be distinctly analyzed and filtered (due to the fact that they are smaller regions, which can accurately determine if they are regions of interest or non-interest, and contain other relevant information), such that higher compression can take place on the non-interest region by losing spatial information by low-pass filtering, as taught by Kato, while keeping information related to the region of interest by way of determining by the smaller rectangle if the areas contain relevant information.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Chen to Kato.

8) Regarding Claim 12, Kato teaches a computer-readable medium having recorded thereon a computer program for preprocessing image data input to a data compression apparatus (Col. 10, Lines 38-46: Storage medium stores program code (for preprocessing data)) that

divides said input image data into a plurality of block regions, each shape of which is rectangular, and that performs an orthogonal transform and a quantization on said input image data for each of said block regions (Col. 9, Lines 10-17: H.261 divides the image into a macroblock of 8 by 8 pixels, which is then transform coded using discrete cosine transform (DCT), which quantizes the image data which was subjected to DCT),

the computer program comprising procedures for executing: a filtering region dividing step of dividing said input image data into a plurality of filtering regions (Figure 7: Step 1005 divides the image into face area or non face area);

a region designating step of discriminating important regions from unimportant regions in said input image data (Figure 7: The face area is discriminated as the important region and unimportant region (non face area)); and

a filtering step of performing a filtering processing on said unimportant regions for each of the filtering regions to attenuate a high frequency component of said input image data (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)),

each of the rectangular regions being obtained by equally dividing each of said block regions by 2n (where n is a natural number) and each having a size of two or more pixels (Col. 9, Lines 10-17: Using H.261, the image data is divided into block regions of 16 by 16 pixels (which is 2*8), which is more than two or more pixels), and

said filtering processing is performed using a low-pass filter common to said respective filtering regions (Figure 7: S1006 and S1106, if the recognized area is not a face area (unimportant), then spatial filtering is applied, which applies a low-pass filter (Col. 7, Lines 7-16)).

Kato fails to teach each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of one or more adjacent rectangular regions.

However, in the same field of endeavor, Chen teaches each of said filtering regions is a cluster which is smaller than said block region, and which is consisting of

one or more adjacent rectangular regions (Figure 7D: The input image containing the region of interest/important area is divided into one or more adjacent rectangular regions).

Modifying Kato's teachings where he determines if the data contains a face or not and then using Chen's teachings of dividing the filtering regions into smaller regions than the block region (mosaicing) allows for creating smaller areas which can be distinctly analyzed and filtered (due to the fact that they are smaller regions, which can accurately determine if they are regions of interest or non-interest, and contain other relevant information), such that higher compression can take place on the non-interest region by losing spatial information by low-pass filtering, as taught by Kato, while keeping information related to the region of interest by way of determining by the smaller rectangle if the areas contain relevant information.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Chen to Kato.

9) Regarding Claim 13, the combination of Kato and Chen teach the limitations of claim 2, where Kato further teaches each of the rectangular regions is obtained by equally dividing each of said block regions by 2k in a vertical direction and by 2m in a horizontal direction where k and n are natural numbers (Col. 9, Lines 10-17: Using H.261, the image data is divided into block regions of 16 by 16 pixels , where the values of k and m are 8 (natural number), as 2*8 yields 16).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Chen and in further view of Maeda et al. (U.S. Pat. No.: 6,546,052, "Maeda").

1) Regarding Claim 3, while Kato and Chen teach in combination the limitations of claim 2, they fail to teach the limitations of claim 3.

However, in the same field of endeavor, Maeda teaches said filtering means performs a unification processing for making pixel data within each of said filtering regions discriminated as said unimportant region coincide with one another (Col. 8, Lines 43-57: The block former loads the image data and replaces the input pixel by the average value (unification) when the mask information of the pixel indicates that it is a background pixel (unimportant region), illustrated in Figure 4. This makes the background data (unimportant region) coincide with one another).

Performing a unification process in the filtering region of the unimportant area of Kato would result in a reduction of image data due to the fact that each region is reduced to values which corresponds to an average of the region, thus eliminating the need to save more image data related to an unimportant area, thus achieving higher image compression and a better result.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Maeda to Chen and Kato.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Chen and in further view of Taketa et al. (U.S. Pub. No.: 2005/0175251, "Taketa").

1) Regarding Claim 4, while Kato and Chen teach in combination the limitations of claim 2, they fail to teach the limitations of claim 4.

However, in the same field of endeavor, Taketa teaches pickup image data picked up by a monitoring camera is input as said input image data (Paragraph 150: The usefulness of the invention is found during the application to surveillance camera, which produces image with low quality, and then reproduced with higher quality only when necessary), and said important regions and said unimportant regions are designated by an operator (Paragraph 119: The region of interest may be selected in a manner that a user specifies a specific region in an original image).

Allowing an operator to select regions of interest and non-interest allows for an apparatus to selectively encode the region of interest using more space so that the data can be clearly viewed at a later time (reviewing surveillance footage) and using less space to encode the regions of non-interest so that space is not wasted on those areas, yielding in data which can be viewed without loss of region of interest data.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Taketa to Chen and Kato.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Chen in view of Taketa and in further view of Creamer et al. (U.S. Pub. No.: 2005/0146610, "Creamer").

1) Regarding Claim 5, while Kato and Chen teach in combination the limitations of claim 2, they fail to teach the limitations of claim 5.

Taketa teaches wherein pickup image data picked up by a monitoring camera is input as said input image data (Paragraph 150: The usefulness of the invention is found during the application to surveillance camera, which produces image with low quality, and then reproduced with

higher quality only when necessary), and determining important regions and unimportant regions (Figure 2, Unit 18, ROI Selector) automatically, he fails to teach using a detection signal from a moving body detection sensor.

However, in the same field of endeavor, Creamer teaches using a trigger from a motion sensor to indicate an event signal (Figure 3: Unit 215 is a trigger (motion sensor)).

Using Creamer's motion sensor to trigger Taketa's ROI to select important and unimportant regions would allow for a way to select individuals or objects which are moving so that the high resolution images can be reconstructed as taught by Taketa, thus allowing a totally automated system, which is quicker and efficient, and eliminating the need of having an user view the feed of monitoring camera for motion in the image encoding apparatus taught by Kato and Chen.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Creamer and Taketa to Chen and Kato.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Chen and in further view of Zandi (U.S. Pat. No.: 7,068,849).

1) Regarding Claim 7, while Kato and Chen teach in combination the limitations of claim 2, they fail to teach the limitations of claim 7.

However, in the same field of endeavor, Zandi teaches filtering region dividing means divides said input image data into said filtering regions of two or more types different in size (Figures 20 & 21: The image data is divided in at least two different sizes (TS Horizontal & Vertical), and the subbands in Figure 21 are rectangular 8 lines high).

Dividing the data into filtering regions of two or more types different in size allows for a way to achieving different levels of compression based on the image data, such that higher levels of compression are achieved, thus yielding in a better result which saves memory and bandwidth.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Zandi to Chen and Kato.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav G. Patel whose telephone number is (571)270-5812. The examiner can normally be reached on Monday - Friday 8 am - 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nirav G. Patel/
Examiner, Art Unit 2624

/CHARLES KIM/
Primary Examiner, Art Unit 2624